# Department of Environmental Protection

Jeb Bush
Governor

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2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Colleen M. Castille
Secretary


January 12, 2005

James D. Giattina, Director
Water Management Division
U. S. Environmental Protection Agency, Region 4
Atlanta Federal Center, 61 Forsyth Street
Atlanta, Georgia 30303-8960

Re: Petition to Withdraw Florida's NPDES Authority of March 19, 2004
NPDES Program Response to EPA Letter of December 8, 2004

Dear Mr. Giattina:

This letter is in response to your recent inquiry regarding clarification of the Department's legal authority and NPDES program implementation of two specific items in the Petition and Complaint filed by the Natural Resources Defense Council, Sierra Club, and Linda Young (petitioners). These two items are addressed below.

The first item pertains to implementation of federally promulgated standards in State issued NPDES permits, namely the Dioxin standard. As detailed in the statement of legal authority attached herein, the Department has clearly established that it has the power and authority to implement the NPDES program in a manner that is consistent to the Federal Clean Water Act. Specifically, this authority is stated in Section 403.0885(2) Florida Statutes. In regards to water quality criteria, Rule 62-302.500 (1)(a) 5. and 6., F.A.C, (minimum water quality criteria for surface waters) provides a vehicle for the Department to address and implement EPA promulgated criteria such as Dioxin in Department-issued NPDES permits. Based on this authority, the Department has and will continue to implement the Dioxin standard , and any similarly promulgated EPA standard, in its NPDES permits. An example is the recently issued NPDES permit for Rayonier Performance Fibers, LLC, NPDES permit FL0000701, which includes the Dioxin effluent limitation consistent with the federally promulgated standard. As stated in the Fact Sheet for this permit, the basis for including the Dioxin limit was the EPA water quality criteria for this parameter, and the authority for inclusion of the limit was the minimum criteria rule, 62-302.500 FAC. Copies of the pertinent pages of the permit and Fact Sheet for this facility are enclosed. It should be recognized that in some permits the dioxin limits are expressed to acknowledge the limitation of current analytical methods. Currently approved EPA methods are not capable of analyzing dioxin concentrations as low as the federally promulgated criterion. For those permits that reflect these analytical limitations, fish tissue analysis is required to ensure protection of the water bodies designated use.

The second item you had requested clarification deals with regulatory actions in state-issued NPDES permits when the receiving water body has not been included on the Department's list of impaired waters. As indicated in the detailed statement of legal authority enclosed with this letter, the Department relies on numerous rules and regulations to ensure that when issuing its discharge permits, the water quality of the receiving body is protected and preserved. It should be noted that in Florida, the burden of demonstrating reasonable assurance to meet water quality standards rests solely with the permittee. Key steps in the permitting process involve the evaluation of whether a discharge causes or contributes to violations of water quality standards, and the development of water quality based effluent limitations.

This process involves evaluation of available data, including ambient water quality. It can also involve the collection of new water quality data that will sufficiently characterize the receiving waters and enable the completion of the cause and contribute analysis. These steps are applicable to all discharges, regardless of whether a water body is on the Department's list as impaired or not. In cases where EPA has listed a water body, or developed a TMDL for a water body that has not been listed by the state, that data is and will be used by the Department for deriving effluent limitations. In the case of an EPA developed TMDL, the Department would include permit limits that are consistent with the TMDL, or if necessary, require the applicant to proceed through a level II WQBEL to verify, or provide the basis to modify EPA's TMDL. As a practical matter, Department staff coordinates with EPA on those TMDLs that EPA is developing and provides facility and water quality information available through the NPDES program to assist with the TMDL development.

We would be pleased to provide any additional information or clarifications regarding Florida's implementation of its NPDES program.

Sincerely,

Jerry Brooks

Jerry Brooks
Deputy Division Director
Division of Water Resources

JB/wfr/eap

Enclosures

# Department of
# Environmental Protection

Jeb Bush
Governor

Northeast District
7825 Baymeadows Way, Suite B-200
Jacksonville Florida 32256-7590

Colleen M. Castille
Secretary

ELECTRONIC CORRESPONDENCE

## STATE OF FLORIDA
## INDUSTRIAL WASTEWATER FACILITY PERMIT

**PERMITTEE:**

Rayonier Performance Fibers, LLC
P. O. Box 2002
Fernandina Beach, Florida 32035-2002

**PERMIT NO.:** FL0000701
**ISSUANCE DATE:** December 1, 2004
**EXPIRATION DATE:** November 30, 2009
**PA FILE NO.:** FL0000701-005-IW1S

**RESPONSIBLE AUTHORITY:**

Mr. Jack Perrett, General Manager
Rayonier Performance Fibers, LLC

**FACILITY:**

Rayonier Performance Fibers, LLC
Fernandina Beach, Florida
Nassau County

Latitude: 30°39'44" N Longitude: 81°28'13" W

This permit is issued under the provisions of Chapter 403, Florida Statutes, and applicable rules of the Florida Administrative Code and constitutes authorization to discharge to waters of the state under the National Pollutant Discharge Elimination System. The above named permittee is hereby authorized to operate the facilities shown on the application and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

**TREATMENT FACILITIES/FACILITY DESCRIPTION:**

For the operation renewal of an industrial wastewater treatment system with a 26.31 MGD design capacity consisting of grit removal, neutralization, primary clarifier and a 34-acre mechanical aeration lagoon with effluent discharge through D-001 only on outgoing tides. Rayonier Performance Fibers, LLC is a chemical cellulose pulp mill (sulfite process) and is located on Foot of Gum Street, Fernandina Beach, Nassau County, Florida.

**EFFLUENT DISPOSAL:**

**Surface Water Discharge:** Outfall D-001 discharges to the Amelia River, a Class III marine surface water of the State. Outfall D-001 discharges through a 48 inch diameter pipe, which projects 800 ft and has a 200 ft. diffuser. Outfall D-001 is located approximately at latitude 30°39'21" N, longitude 81°29'02" W.

**IN ACCORDANCE WITH:**

The limitations, monitoring requirements and other conditions set forth in Part I, Part II, Part III, Part IV, Part V, Part VI, Part VII, and Part VIII on pages 1 through 21 of this permit.

PERMITTEE:
Rayonier Performance Fibers, LLC.
Post Office Box 2002
Fernandina Beach, FL 32035

PERMIT NUMBER: FL0000701-005-IW1S
Issuance date: December 1, 2004
Expiration date: November 30, 2004

# I. Effluent Limitations and Monitoring Requirements

## A. Surface Water Discharges

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to:

Discharge from Outfall D-001, treated process wastewater and treated storm water, rinse water and regenerate water from the water treatment plant zeolite softening units. Such discharge shall be limited and monitored by the permittee as specified below:

| Parameters | Effluent Sampling Location | Discharge Limitations | | | Measure Frequency | Sample Method/Type |
|---|---|---|---|---|---|---|
| | | Other | Daily Max. | Daily Average | | |
| Flow combined (former D-001 and former D-002), MGD | EFF-1, See I.A.4 | -- | 26.31 | Report | Continuous | Calculated, |
| Flow (clear sewer discharge, former D-002), MGD | EFF-2, See I.A.4 | -- | Report | Report | Continuous | Recorder |
| Flow (treated process wastewater and treated storm water; former D-001), MGD | EFF-3, See I.A.4 | -- | Report | Report | Continuous | Recorder |
| Biochemical Oxygen Demand 5-day (lbs/day) | EFF-1, See I.A.4 | -- | 47,250 | 27,000 | Daily | 24-hour composite, See I.A.8 |
| Total Suspended Solids (lbs/day) | EFF-1, See I.A.4 | -- | 55,000 | 38,278 | Daily | 24-hour composite, See I.A.8 |
| pH (S.U.)** | EFF-1, See I.A.4 | ***6.0, Daily Min | 8.5 | -- | Continuous | Recorder, See I.A.8. |
| Total Ammonia, as N (mg/L) | EFF-1, See I.A.4 | 11.0 annual average, 20.0 monthly average, report daily maximum, See Part I.A.7 | | | 1/week | 24-hour composite, See I.A.8 |
| Un-ionized Ammonia, N (mg/L) | EFF-1, See I.A.4 | -- | Report | -- | 1/week | Calculated, See I.A.8 |
| Temperature, (°F) | EFF-1, See I.A.4 | -- | Report | -- | Continuous | Recorder, See I.A.8 |
| 2,3,7,8 -tetrachloro-dibenzo-p-dioxin (TCDD), pg/l | EFF-1, See I.A.4 and Sludge | -- | 0.014 and See Parts I.A.9, I.E. 5. | -- | 1/quarter See Parts I.A.9, I.E. 5. | 72-hour composite, See I.A.8, I.A.9 |

becoming effective. The Permittee shall report the calculated 12-month rolling average (using all samples collected for the limited parameter) on the DMR.

8. The samples tested shall be a composite mixed in the laboratory from separate grab samples collected at EFF-2 (clear sewer discharge) and EFF-3 (treated process wastewater and treated storm water prior to mixing with EFF-2) which will represent the flow-proportioned discharge from EFF-1. The laboratory will mix the two samples to yield a flow-proportioned test sample based on the sample day's flow rates measured at EFF-2 and EFF-3. For example, if the flow rate from EFF-3 is 10 MGD and the flow rate from EFF-2 is 2 MGD, samples shall be mixed and analyzed at the ratio of 10:2.

9 After three consecutive sampling events indicating dioxin compliance the sampling analysis frequency shall be reduced to once per year. If the concentration of 2,3,7,8-TCDD is determined to be less than the minimum detection level of 10 pg/l for method 1613B, then compliance with the 2,3,7,8 limitation in this permit is demonstrated. The sample shall consist of three 24-hour composite samples. The effluent limitation for 2,3,7,8-TCDD is for that isomer only.

**B. Surface Water Discharges - Storm Water Only**

Collected stormwater is treated and discharged at Outfall D-001. Stormwater only outfalls are covered under the applicable Chapter 62-621 FAC Multi-Sector Generic Permit for Stormwater Associated With Industrial Activity.

**C. Other Methods of Disposal or Recycling**

There shall be no discharge of industrial wastewater from this facility, except that identified in permit applications or authorized by this permit, to ground or surface waters.

**D. Toxicity Monitoring Program**

The maximum concentration of wastes in the mixing zones established in Part I.E.2 and 3 may exceed the 96 hour LC50 in accordance with FAC Rule 62-4.244(3)(b). Accordingly, the effluent when diluted to 30% of full strength, shall not cause more than 50% mortality in 96 hours (96 hr. LC50) to the bioassay test species pursuant to Rule 62-4.244(3)(b)(4), FAC. Toxicity testing shall be performed in accordance with Specific Condition I.D.2 of this permit.

**Acute Whole Effluent Toxicity Monitoring Program**

2. As required by Specific Condition I.A.1. of this permit, the Permittee shall continue the series of tests described below 90 days from the most recent quarterly test, and then quarterly thereafter, to evaluate acute whole effluent toxicity of the effluent from Outfall D-001. The sampling frequency may be reduced to once every six months after 3 sets of valid quarterly toxicity bioassay tests have demonstrated 96-hour LC50 not less than 30% effluent as described in Part I.D.1.

The Permittee shall conduct 96-hour acute definitive, static-renewal, toxicity bioassays on the mysid shrimp, *Americamysis bahia*, and the inland silverside, *Menidia beryllina*, using a flow-proportioned effluent sample composited from grab samples collected at EFF-2 and EFF-3, as stated in I.A.8. These multi-concentration tests shall be conducted using 100%, 75%, 50%, 25%, 12.5%, 6.25% effluent and 0% effluent (control water) involving the determination of 96-hour LC50 values with 95% confidence limits, and are referred to as "routine" tests.

RECEIVED
MAY 27 2004
Industrial Wastewater Section

# DRAFT AMENDMENT TO THE FACT SHEET AT THE TIME OF 2nd NOTICE OF DRAFT PERMIT

DATE: May 26, 2004

PERMIT NUMBER: FL0000701

NAME OF APPLICANT: Rayonier, Incorporated

FACILITY NAME: Rayonier, Incorporated - Fernandina

PERMIT WRITER: Ken Kohn, P.E.

1. CHANGES TO PERMIT FROM 1ST DRAFT PERMIT TO 2nd NOTICE OF DRAFT PERMIT STAGE:

A formal notice of draft permit for the subject facility was mailed on June 24, 2003. The notice of draft permit was published on July 16, 2003. A formal public meeting was not requested nor required. Written comments were received from the Permittee by e-mail dated July 7, 2003, and by the EPA by letter dated July 8, 2003. Additional written comments were received from the permittee by letter dated August 15, 2003. No comments were received from the public. It is also noted that the draft permit has been held in abeyance in order for EPA to review and approve the departments granting of a site-specific alternative water quality criteria for dissolved oxygen (i.e., DEP SSAC VE-45-174 granted June 22, 1985). The Department has reviewed the comments and provides the following responses to each:

Permittee's 7/7/03 e-mail

a. Response to comment 1. Regarding toxicity the chronic limit was removed as of the last modification based on the phytoplankton recovery and using that as the indicator organism [i.e., species significant to the indigenous aquatic community-FAC Rule 62-302.200(4)]. It is well recognized by the Department of the substantial reduction in the effluent ammonia and restoration of natural phytoplankton levels. What is somewhat confusing is that the standard is not the 1/3 96hr LC50 based on 100% effluent but that effluent when diluted to 30% of full strength cannot cause toxicity to more than 50% of the test organisms [FAC Rule 62-4.244(3)(b)4] and applies to end of pipe. This means that you could have toxicity to 50% of the organisms based on 100% effluent and still be in compliance as long as 30% effluent is not toxic to more than 50% of the test organisms. Our data demonstrates that you meet the standard referenced in the permit. To clarify where the 30% criteria is from we have modified Part I.D.1 to read as follows: The maximum concentration of wastes in the mixing zones established in Part I.E.2 and 3 may exceed the 96 hour LC50 in accordance with FAC Rule 62-4.244(3)(b). Accordingly, the effluent when diluted to 30% of full strength shall not cause more than 50% mortality in 96 hours (96 hr. LC50) to the bioassay test species pursuant to Rule 62-4.244(3)(b)(4), FAC. Toxicity testing shall be performed in accordance with Specific Condition I.D.2 of this permit.
b. Response to comment 2. Regarding dioxin the department uses as its basis for the limit the EPA water quality criteria for 2,3,7,8 TCDD of .014 pg/l/ppq (FR/Vol.63 No. 237/Thursday, December 10, 1998/Notices, page 68357). This criteria is also used in pulp and paper mills and clean up sites where dioxin is believed to be present (Georgia-Pacific Corporation Palatka and Coleman Evans Clean up Site). It should be noted that the basis for compliance is established as 10 ppq per EPA 1613 (40CFR part 136/Appendix A). We acknowledge that the parameter was report only in the previous permit. The difference this time is that there is a

permit limit for 2,3,7,8 TCDD and monitoring for the 2,3,7,8 TEQ as identified in Part I.E.5. Part I.A.1 and E.5 are modified to reflect the difference between the effluent limit and monitoring requirement.

c. The work identified for the landfill has been added to the draft permit part II.A.13.
d. The fish tissue monitoring has been reduced to 1 per permit cycle and is reflected in Part I.E.6 of the permit.
e. August 15, 2003 comments: The permittee submitted water quality information for turbidity which demonstrated that the discharge is not causing a water quality violation with regard to turbidity. Therefore the schedule in Part VI.2 regarding turbidity has been deleted from the draft permit.
f. August 15, 2003 comments: The permittee submitted water quality information for transparency which was reviewed by the department and Florida State University Statistics Program (Statistical Evaluation of Transparency Data From the Fernandina Mill Discharge, September-October 2003). Based on the departments review, compliance with the water quality standard for transparency for the time frame of the study period was demonstrated (1990-1997). Therefore Part VI. 2 of the permit was deleted. For further compliance demonstration the parameter of secci depth is added with the instream monitoring requirements of Part I.E.4.
g. August 15, 2003 comments: The permittee requested a mixing zone for pH to lower the minimum pH from 6.5 s.u in the discharge to 6.0 s.u. in accordance with FAC Rule 62-4.244. The department reviewed the modeling analysis for the mixing zone and concurred that it complies with the mixing zone rule. The draft permit has been revised to reflect a pH limit of 6.0 minimum to 8.5 s.u. maximum for any area of approximately 100.5 square meters, roughly the size of the existing mixing zone for zinc. Part I.A.1 and I.E.3 of the permit has been revised accordingly.
h. August 15, 2003 comments: The permittee requested a reduction in the frequency of ambient monitoring as described in Part I.E.4 as well as a more defined sampling time. The pervious permit required sampling monthly as a report. The data reviewed indicates that switching to every two months will provide adequate compliance monitoring for the parameters of concern [FAC Rule 62-620.320(6)]. The monitoring times being changed to 1 hour prior to high and low tide will also provide as representative sampling as the previous 6 am – 10 am/2 pm – 6 pm, over the 48 hour test period [FAC Rule 62-620.320(6)].

EPA's 7/8/03 letter

a. EPA comment on reducing mixing zone sizes for metals: The Department used the reasonable assurance model to verify the appropriate effluent limits for the metals. After reviewing the results the department has lowered the copper and lead limit to 11.5 and 27.2 ug/l, respectively [FAC Rule 62-620.320(6)]. The remaining limits established were not statistically different to warrant a change.
b. The basis for continuing the dissolved oxygen mixing zone has been added to the fact sheet and is stated as follows: The in stream dissolved oxygen monitoring is continued from the previous permit. The currently established mixing zone is needed because the effluent DO remains very low based on the anaerobic conditions in the treatment system. Bringing up the DO at the exit point has been investigated over the years but does not fit within the current treatment system configuration. The current in-stream monitoring locations are at the boundaries of the established mixing zone and appear to be appropriate given the overlapping SSAC. Also, the monitoring reports submitted show that the DO is in compliance with the SSAC{FAC Rules 62-4.244(3) and 62-620.320(6)}.

2. PUBLIC COMMENTS:

No public comments were received.

3) The amount of water used to wash the pulp is reduced, running the risk that the pulp quality will not meet certain requirements for purity.

4) The number of digesters of pulp cooked per day is reduced. This action immediately reduces daily production.

5) The mill can hold up discharges by raising the level in the aerated basin from which discharge occurs, or inventorying water in various stormwater or other holding ponds.

b. Outfall D-001:

| Parameter | | Basis for Limit/Monitoring Requirement |
|---|---|---|
| Flow combined (former D-001 and former D-002), MGD | Daily Max, Report | FAC Rule 62-620.620(3)(f), FAC Rule 62-620.320(6), FAC Rule 62-620.620(2)(d) |
| Flow (former D-002), MGD | Report | FAC Rule 62-620.620(3)(f), FAC Rule 62-620.320(6), FAC Rule 62-620.620(2)(d) |
| Flow (treated process wastewater and treated storm water, former D-001), MGD | Report | FAC Rule 62-620.620(3)(f), FAC Rule 62-620.320(6), FAC Rule 62-620.620(2)(d) |
| TSS | Daily Maximum | FAC Rule 62-620.620(3)(f), FAC Rule 62-620.320(6). 62-660.400(1)(e)25 Actual permit limit is more stringent than Technology based limits in 40CFR430.42 |
| | Monthly Average | FAC Rule 62-620.620(3)(f), FAC Rule 62-620.320(6) 62-660.400(1)(e)25 |
| BOD5 | Daily Maximum | FAC Rule 62-620.620(3)(f), FAC Rule 62-620.320(6), 62-660.400(1)(e)25. Actual permit limit is more stringent than Technology based limits in 40CFR430.42 |
| | Monthly Average | FAC Rule 62-620.620(3)(f), FAC Rule 62-620.320(6). 62-660.400(1)(e)25 Actual permit limit is more stringent than Technology based limits in 40CFR430.42 |
| pH** | Daily Min and Daily Max | FAC Rule 62-620.620(3)(f), FAC Rule 62-620.320(6). 62-302.520 (52)(c) FAC |
| 2,3,7,8-tetrachloro-p-dioxin (TCDD) | Daily Maximum | 40 CFR Section 122.44(d) Section 402(o)(l) of the Water Quality Act of 1987, FAC Rule 62-302.500, FAC Rule 62-620.320(6) |
| Whole Effluent Acute Toxicity | Minimum | FAC Rule 62-620.620(3)(f), FAC Rule 62-620.320(6), FAC Rule 62-302.200, FAC Rule 62-4.244(3)(b) |
| Unionized Ammonia | Monitor Only | FAC Rule 62-620.620(3)(f), FAC Rule 62-620.320(6) |
| Temperature | Monitor Only | FAC Rule 62-620.620(3)(f), FAC Rule 62-620.320(6), 62-302.520 FAC, BPJ |
| Silver* | Daily Maximum | FAC Rule 62-620.620(3)(f), FAC Rule 62-620.320(6), 62-302.500(1)(c) FAC |
| Nickel* | Daily Maximum | FAC Rule 62-620.620(3)(f), FAC Rule 62-620.320(6) |
| Aluminum* | Daily Maximum | FAC Rule 62-620.620(3)(f), FAC Rule 62-620.320(6) |
| Copper* | Daily Maximum | FAC Rule 62-620.620(3)(f), FAC Rule 62-620.320(6) |
| Iron* | Daily Maximum | FAC Rule 62-620.620(3)(f), FAC Rule 62-620.320(6) |
| Lead* | Daily Maximum | FAC Rule 62-620.620(3)(f), FAC Rule 62-620.320(6) |
| Zinc* | Daily Maximum | FAC Rule 62-620.620(3)(f), FAC Rule 62-620.320(6) |
| Total Ammonia, as N (mg/L) | Maximum/Average | FAC Rule 62-620.620(2)(d), FAC Rule 62-620.100(3)(h), 40CFR Part 125.3 [Technology-based treatment requirements in permit (TBEL)], FAC Rule 62-620.320(6) |
| Monitoring Frequency and Sample Type | All Parameters | FAC Rules 62-620.620(2)(a),(d), 62-620.320(6), 62-4.246, |
| Sampling Location | All Parameters | FAC Rules 62-620.620(2)(a),(d), 62-620.320(6), |